

**INFORMATION
DISCLOSURE
STATEMENT**

Atty. Docket No.: 235.00210101

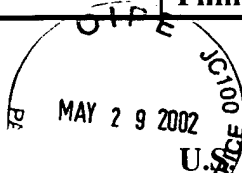
Serial No.: 10/030,330

Applicant(s): J. Travis et al.

Confirmation No.: 4105

Filing Date: October 19, 2001

Group: 1653/1652

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	none					

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FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
WWM	WO 99 29870	04-30-99	PCT	—	—		

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial	Document Description
WWM	Altschul et al., "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs," <i>Nucleic Acids Res.</i> 1997 Sep 1;25(17):3389-402.
WWM	American Type Culture Collection, "ATCC Number 33277," organism: <i>Porphyromonas gingivalis</i> ; designation: 2561 [online]; Manassas, VA [retrieved on 2002-04-12] from the Internet. Retrieved from the Internet: <URL: http://www.atcc.org/SearchCatalogs/longview.cfm?view=ba,6093556,33277&text=33277 >; 2 pgs.
WWM	American Type Culture Collection, "ATCC Number 53978," organism: <i>Porphyromonas gingivalis</i> ; designation: W50 [online]; Manassas, VA [retrieved on 2002-04-15] from the Internet. Retrieved from the Internet: < http://www.atcc.org/SearchCatalogs/longview.cfm?view=ba,9154082,53978&text=53978 >; 2 pgs.
WWM	Ausubel et al., eds., <i>Current Protocols in Molecular Biology</i> , Vols. 1-4, John Wiley & Sons, Inc., New York, NY, 1994; title page, publisher's page and table of contents only (12 pages).
WWM	Banbula et al., "Prolyl tripeptidyl peptidase from <i>Porphyromonas gingivalis</i> . A novel enzyme with possible pathological implications for the development of periodontitis," <i>J Biol Chem.</i> 1999 Apr 2;274(14):9246-52.

EXAMINER <i>William W. Moon</i>	Date Considered <i>25 June 2003</i>
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Wm	Barrett et al., eds., <i>Handbook of Proteolytic Enzymes</i> , Academic Press, New York, NY, 1998; title page, publisher's page and table of contents only (14 pages).
Wm	Brosius et al., "Gene organization and primary structure of a ribosomal RNA operon from <i>Escherichia coli</i> ," <i>J Mol Biol.</i> 1981 May 15;148(2):107-27.
Wm	Burdavari et al. eds., "Leupeptins," <i>The Merck Index</i> , 1996; Merck & Co., Inc., Whitehouse Station, NJ; item 5483, pg. 932.
Wm	Carlsson et al., "Degradation of the human proteinase inhibitors alpha-1-antitrypsin and alpha-2-macroglobulin by <i>Bacteroides gingivalis</i> ," <i>Infect Immun.</i> 1984 Feb;43(2):644-8.
Wm	Chen et al., "Purification and characterization of a 50-kDa cysteine proteinase (gingipain) from <i>Porphyromonas gingivalis</i> ," <i>J Biol Chem.</i> 1992 Sep 15; 267(26):18896-901.
Wm	Church et al., "Genomic sequencing," <i>Proc Natl Acad Sci U S A.</i> 1984 Apr; 81(7):1991-5.
Wm	Cox et al., "Detection of cathepsin B- and L-, elastase-, trypsin-, and dipeptidyl peptidase IV-like activities in crevicular fluid from gingivitis and periodontitis patients with peptidyl derivatives of 7-amino-4-trifluoromethyl coumarin," <i>J Periodontal Res.</i> 1989 Nov;24(6):353-61.
Wm	Cox et al., "Cathepsin B/L-, elastase-, trypsin- and dipeptidyl peptidase IV-like activities in gingival crevicular fluid. A comparison of levels before and after basic periodontal treatment of chronic periodontitis patients," <i>J Clin Periodontol.</i> 1992 May;19(5):333-9.
Wm	Cutler et al., "Inhibition of C3 and IgG proteolysis enhances phagocytosis of <i>Porphyromonas gingivalis</i> ," <i>J Immunol.</i> 1993 Dec 15;151(12):7016-29.
Wm	Darany et al., "The relationship of gingival fluid leukocyte elastase activity to gingival fluid flow rate," <i>J Periodontol.</i> 1992 Sep;63(9):743-7.
Wm	Darveau et al., "Local chemokine paralysis, a novel pathogenic mechanism for <i>Porphyromonas gingivalis</i> ," <i>Infect Immun.</i> 1998 Apr;66(4):1660-5.
Wm	Dashper et al., "Amino acid and peptide uptake by <i>Porphyromonas gingivalis</i> ," Abstract from International Association In Dental Research, Argentine division, XXX Annual Meeting. La Cumbre, Cordoba, Argentina. October 23-25, 1997. <i>J Dent Res.</i> 1998 May;77(5):1133 (abstract no. 36).

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WWM	Davis, "Disc electrophoresis - II - method and application to human serum proteins," <i>Anal NY Acad Sci</i> . 1964 Dec;121(2):404-427.
WWM	Elliott et al., "Wild-type α_1 -antitrypsin is in the canonical inhibitory conformation," <i>J Mol Biol</i> . 1998 Jan 23;275(3):419-25.
WWM	Fokkema et al., "A possible association of α_1 -antitrypsin deficiency with the periodontal condition in adults," <i>J Clin Periodontol</i> . 1998 Aug;25(8):617-23.
WWM	Genco et al., "A peptide domain on gingipain R which confers immunity against <i>Porphyromonas gingivalis</i> infection in mice," <i>Infect Immun</i> . 1998 Sep;66(9):4108-14.
WWM	GenomeNet, "CLUSTALW: Multiple Sequence Alignment," [online], Bioinformatics Center, Institute for Chemical Research, Kyoto University, Kyoto, Japan; updated 2000-12-03 [retrieved on 2002-04-15]. Retrieved from the Internet: <URL: http://clustalw.genome.ad.jp/ >; 2 pgs.
WWM	Grenier, "Degradation of host protease inhibitors and activation of plasminogen by proteolytic enzymes from <i>Porphyromonas gingivalis</i> and <i>Treponema denticola</i> ," <i>Microbiology</i> . 1996 Apr;142(Pt 4):955-61.
WWM	Huynh et al., "Gingival crevicular fluid of patients with gingivitis or periodontal disease: evaluation of elastase- α_1 proteinase inhibitor complex," <i>J Clin Periodontol</i> . 1992 Mar;19(3):187-92.
WWM	Imamura et al., "Dependence of vascular permeability enhancement on cysteine proteinases in vesicles of <i>Porphyromonas gingivalis</i> ," <i>Infect Immun</i> . 1995 May;63(5):1999-2003.
WWM	Institute for Genomic Research, "TIGR Databases," [online] Rockville, MD; [retrieved on 2002-04-15]. Retrieved from the Internet: <URL: http://www.tigr.org/ >; 2 pgs.
WWM	Jagels et al., "Proteolytic inactivation of the leukocyte C5a receptor by proteinases derived from <i>Porphyromonas gingivalis</i> ," <i>Infect Immun</i> . 1996 Jun;64(6):1984-91.
WWM	Kadowaki et al., "Purification and characterization of a novel arginine-specific cysteine proteinase (argingipain) involved in the pathogenesis of periodontal disease from the culture supernatant of <i>Porphyromonas gingivalis</i> ," <i>J Biol Chem</i> . 1994 Aug 19;269(33):21371-8.

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WWM	Karunakaran et al., "Isolation and characterization of a hemin-regulated gene, <i>hemR</i> , from <i>Porphyromonas gingivalis</i> ," <i>J Bacteriol.</i> 1997 Mar;179(6):1898-908.
WWM	Kiyama et al., "Sequence analysis of the <i>Porphyromonas gingivalis</i> dipeptidyl peptidase IV gene," <i>Biochim Biophys Acta.</i> 1998 Mar 4;1396(1):39-46.
WWM	Kornman, "Controlled-release local delivery antimicrobials in periodontics: prospects for the future," <i>J Periodontol.</i> 1993 Aug;64(8-Suppl):782-91.
WWM	Kuramitsu, "Proteases of <i>Porphyromonas gingivalis</i> : what don't they do?" <i>Oral Microbiol Immunol.</i> 1998 Oct;13(5):263-70.
WWM	Madden et al., "Revised sequence of the <i>Porphyromonas gingivalis</i> prtT cysteine protease/hemagglutinin gene: homology with streptococcal pyrogenic exotoxin B/streptococcal proteinase," <i>Infect Immun.</i> 1995 Jan;63(1):238-47.
WWM	Madianos et al., " <i>Porphyromonas gingivalis</i> infection of oral epithelium inhibits neutrophil transepithelial migration," <i>Infect Immun.</i> 1997 Oct;65(10):3983-90.
WWM	Mast et al., "Kinetics and physiologic relevance of the inactivation of α_1 -proteinase inhibitor, α_1 -antichymotrypsin, and antithrombin III by matrix metalloproteinases-1 (tissue collagenase), -2 (72-kDa gelatinase/type IV collagenase), and -3 (stromelysin)," <i>J Biol Chem.</i> 1991 Aug 25;266(24):15810-6.
WWM	Matsudaira, "Sequence from picomole quantities of proteins electroblotted onto polyvinylidene difluoride membranes," <i>J Biol Chem.</i> 1987 Jul 25;262(21):10035-8.
WWM	Mikolajczyk-Pawlinska et al., "Modulation of interleukin-8 activity by gingipains from <i>Porphyromonas gingivalis</i> : implications for pathogenicity of periodontal disease," <i>FEBS Lett.</i> 1998 Dec 4;440(3):282-6.
WWM	Miyasaki, "The neutrophil: mechanisms of controlling periodontal bacteria," <i>J Periodontol.</i> 1991 Dec;62(12):761-74.
WWM	Moore et al., "Bacteriology of severe periodontitis in young adult humans," <i>Infect Immun.</i> 1982 Dec;38(3):1137-48.
WWM	Nakayama et al., "Construction and characterization of arginine-specific cysteine proteinase (Arg-gingipain)-deficient mutants of <i>Porphyromonas gingivalis</i> . Evidence for significant contribution of Arg-gingipain to virulence," <i>J Biol Chem.</i> 1995 Oct 6;270(40):23619-26.

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Wron	National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, "BLAST 2 SEQUENCES," Bethesda, MD [retrieved on 2002-05-10]. Retrieved from the Internet: <URL: http://www.ncbi.nlm.nih.gov/blast/bl2seq/bl2.html >; 1 pg.
Wron	National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, GenBank Locus NM_000295, Accession No. NM_000295, "Homo sapiens serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1 (SERPINA1), mRNA," [online]. Bethesda, MD [retrieved on 2002-05-10]. Retrieved from the Internet: <URL: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=nucleotide&list_uids=4505792&dopt=GenBank >; 4 pgs.
Wron	National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, GenBank Locus PGU85038, Accession No. U85038, "Porphyromonas gingivalis arginine-specific cysteine proteinase RGP-2 (rgp2) gene, complete cds." [online]. Bethesda, MD [retrieved on 2002-05-10]. Retrieved from the Internet: <URL: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=nucleotide&list_uids=1814393&dopt=GenBank >; 3 pgs.
Wron	Nelson et al., "Inactivation of alpha1-proteinase inhibitor as a broad screen for detecting proteolytic activities in unknown samples," <i>Anal Biochem.</i> 1998 Jul 1;260(2):230-6.
Wron	Nelson et al., "Purification and characterization of a novel cysteine proteinase (periodontain) from <i>Porphyromonas gingivalis</i> . Evidence for a role in the inactivation of human alpha1-proteinase inhibitor," <i>J Biol Chem.</i> 1999 Apr 30;274(18):12245-51.
Wron	Otogoto et al., "Isolation and characterization of the <i>Porphyromonas gingivalis</i> prtT gene, coding for protease activity," <i>Infect Immun.</i> 1993 Jan;61(1):117-23.
Wron	Pike et al., "Lysine- and arginine-specific proteinases from <i>Porphyromonas gingivalis</i> . Isolation, characterization, and evidence for the existence of complexes with hemagglutinins," <i>J Biol Chem.</i> 1994 Jan 7;269(1):406-11.
Wron	Potempa et al., "The inactivation of human plasma alpha 1-proteinase inhibitor by proteinases from <i>Staphylococcus aureus</i> ," <i>J Biol Chem.</i> 1986 Oct 25; 261(30):14330-4.

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WWM	Potempa et al., "The serpin superfamily of proteinase inhibitors: structure, function, and regulation," <i>J Biol Chem.</i> 1994 Jun 10;269(23):15957-60.
WWM	Potempa et al., "Host and <i>Porphyromonas gingivalis</i> proteinases in periodontitis: A biochemical model of infection and tissue destruction," <i>Perspectives in Drug Discovery and Design</i> , 1995;2(3):445-458.
WWM	Potempa et al., " <i>Porphyromonas gingivalis</i> proteinases in periodontitis, a review," <i>Acta Biochim Pol.</i> 1996;43(3):455-65.
WWM	Potempa et al., "Comparative properties of two cysteine proteinases (gingipains R), the products of two related but individual genes of <i>Porphyromonas gingivalis</i> ," <i>J Biol Chem.</i> 1998 Aug 21;273(34):21648-57.
WWM	Sambrook et al., <i>Molecular Cloning: A Laboratory Manual, Books 1-3</i> , Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989; title page, publisher's page and table of contents only (30 pgs).
WWM	Schägger et al., "Tricine-sodium dodecyl sulfate-polyacrylamide gel electrophoresis for the separation of proteins in the range from 1 to 100 kDa," <i>Anal Biochem.</i> 1987 Nov 1;166(2):368-79.
WWM	Schenkein et al., "Increased opsonization of a <i>prtH</i> -defective mutant of <i>Porphyromonas gingivalis</i> W83 is caused by reduced degradation of complement-derived opsonins," <i>J Immunol.</i> 1995 May 15;154(10):5331-7.
WWM	Slots et al., "The occurrence of <i>Actinobacillus actinomycetemcomitans</i> , <i>Bacteroides gingivalis</i> and <i>Bacteroides intermedius</i> in destructive periodontal disease in adults," <i>J Clin Periodontol.</i> 1986 Jul;13(6):570-7.
WWM	Smalley et al., "The periodontopathogen <i>Porphyromonas gingivalis</i> binds iron protoporphyrin IX in the μ -oxo dimeric form: an oxidative buffer and possible pathogenic mechanism," <i>Biochem J.</i> 1998 May 1;331(Pt 3):681-5.
WWM	Smith et al., "Inhibition of crevicular fluid neutrophil elastase by α_1 -antitrypsin in periodontal health and disease," <i>Arch Oral Biol.</i> 1994 Apr; 39(4):301-6.
WWM	Socransky et al., "The bacterial etiology of destructive periodontal disease: current concepts," <i>J Periodontol.</i> 1992 Apr;63(4 Suppl):322-31.
WWM	Sugita et al., "Activation of transcription factors and IL-8 expression in neutrophils stimulated with lipopolysaccharide from <i>Porphyromonas gingivalis</i> ," <i>Inflammation.</i> 1998 Jun;22(3):253-67.

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WWM	Travis et al., "Human plasma proteinase inhibitors," <i>Annu Rev Biochem.</i> 1983; 52:655-709.
WWM	Travis et al., "The role of proteolytic enzymes in the development of pulmonary emphysema and periodontal disease," <i>Am J Respir Crit Care Med.</i> 1994 Dec; 150(6 Pt 2):S143-6.
WWM	Travis, James "Bacterial Proteinases in periodontal disease," Grant Abstract, Grant Number 5R01DE009761-10 [online]. National Institute of Dental & Craniofacial Research, National Institutes of Health, project dates 1991-08-01 to 2001-12-31 [retrieved on 2002-05-10]. Retrieved from the Internet: <URL:http://commons.cit.nih.gov/crisp3/CRISP_LIB.getdoc?textkey=6342385&p_grant_num=5R01DE009761-10&p_query=&ticket=943602&p_audit_session_id=5070993&p_keywords=>; 2 pgs.
WWM	Travis et al., "Porphyromonas gingivalis proteinases as virulence factors in the development of periodontitis," <i>J Periodontal Res.</i> 1997 Jan;32(1 Pt 2):120-5.
WWM	Uitto et al., "Oral fluid elastase as an indicator of periodontal health," <i>J Clin Periodontol.</i> 1996 Jan;23(1):30-7.
WWM	White et al., "Association of oral Bacteroides with gingivitis and adult periodontitis," <i>J Periodontal Res.</i> 1981 May;16(3):259-65.
WWM	Wingrove et al., "Activation of complement components C3 and C5 by a cysteine proteinase (gingipain-1) from Porphyromonas (Bacteroides) gingivalis," <i>J Biol Chem.</i> 1992 Sep 15;267(26):18902-7.

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